

**United States Environmental Protection Agency
Region 8
Air Program
1595 Wynkoop Street
Denver, Colorado 80202**



**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE**

In accordance with the provisions of title V of the Clean Air Act and 40 CFR part 71 and applicable rules and regulations,

**Samson Resources
South Ignacio Central Delivery Point**

is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the permit conditions listed in this permit.

This source is authorized to operate at the following location:

**Southern Ute Indian Reservation
SE ¼ of Section 32, Township 33N, Range 7W
La Plata County, Colorado**

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable by EPA and citizens under the Clean Air Act.

A handwritten signature in cursive script, reading "Callie A. Videtich", is written over a horizontal line.

Callie A. Videtich, Director
Air Program
US EPA Region 8

A handwritten date "8/10/09" is written in cursive script.

Date

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**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE
Samson Resources
South Ignacio Central Delivery Point**

| | | |
|--------------------------------------|------------------|-----------------|
| Permit Number: V-SU-0031-08.00 | Issue Date: | August 10, 2009 |
| Replaces Permit No.: V-SU-0031-01.04 | Effective Date: | August 20, 2009 |
| | Expiration Date: | August 20, 2014 |

The permit number cited above should be referenced in future correspondence regarding this facility.

Permit Revision History

| DATE OF REVISION | TYPE OF REVISION | SECTION NUMBER AND TITLE | DESCRIPTION OF REVISION |
|------------------|-------------------------|--------------------------|---|
| April 2004 | Initial Permit Issuance | | Permit #V-SU-0031-01.00 with 4 modifications: #V-SU-0031-01.01 – Significant Modification – Incorporated Synthetic Minor Limits #V-SU-0031-01.02 – Administrative - Change Responsible Official #V-SU-0031-01.03 – Administrative Amendment - Streamlined Permit #V-SU-0031-01.04 - Significant Modification – Incorporated Synthetic Minor Limits |
| 2009 | Renewal Permit Issuance | | Permit #V-SU-0031-08.00 |

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Abbreviations and Acronyms

| | |
|------------------|--|
| AR | Acid Rain |
| ARP | Acid Rain Program |
| bbls | Barrels |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act [42 U.S.C. Section 7401 et seq.] |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CMS | Continuous Monitoring System (includes COMS, CEMS and diluent monitoring) |
| COMS | Continuous Opacity Monitoring System |
| CO | Carbon monoxide |
| CO ₂ | Carbon dioxide |
| DAHS | Data Acquisition and Handling System |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| EIP | Economic Incentives Programs |
| EPA | Environmental Protection Agency |
| FGD | Flue gas desulfurization |
| gal | Gallon |
| gpm | Gallons per minute |
| H ₂ S | Hydrogen sulfide |
| gal | gallon |
| HAP | Hazardous Air Pollutant |
| hr | Hour |
| ICE | Internal Combustion Engine |
| Id. No. | Identification Number |
| kg | Kilogram |
| lb | Pound |
| MACT | Maximum Achievable Control Technology |
| MVAC | Motor Vehicle Air Conditioner |
| Mg | Megagram |
| MMBtu | Million British Thermal Units |
| MMscfd | Million Standard Cubic Feet per Day |
| mo | Month |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NMHC | Non-methane hydrocarbons |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standard |
| NSR | New Source Review |
| pH | Negative logarithm of effective hydrogen ion concentration (acidity) |
| PM | Particulate Matter |
| PM ₁₀ | Particulate matter less than 10 microns in diameter |
| ppm | Parts per million |
| PSD | Prevention of Significant Deterioration |
| PTE | Potential to Emit |
| psi | Pounds per square inch |
| psia | Pounds per square inch absolute |
| RICE | Reciprocating internal combustion engine |
| RMP | Risk Management Plan |
| scfm | Standard cubic feet per minute |
| SI | Spark Ignition |
| SNAP | Significant New Alternatives Program |
| SO ₂ | Sulfur Dioxide |
| tpy | Ton Per Year |
| US EPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Compounds |

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I. Source Information and Emission Unit Identification

I.A. Source Information

Parent Company Name: Samson Resources

Plant Name: South Ignacio Central Delivery Point

Plant Location: SE ¼ of Section 32, T33N R7W
Lat. 37° 3' 14.1" N Long. -107° 37' 30.8" W

Region: 8

State: Colorado

County: La Plata

Reservation: Southern Ute Indian Reservation

Tribe: Southern Ute Indian Tribe

Responsible Official: Attorney-in-Fact

SIC Code: 1311 – Natural Gas Production

AFS Plant Identification Number: 0806700287

Other Clean Air Act Permits: There are no other Federal Clean Air Act (CAA) permits, such as minor NSR or PSD.

Description of Operations: The South Ignacio Central Delivery Point facility compresses inlet coal-bed methane gas to transmission pipeline pressures. Gas entering the facility from the field is first fed to an inlet separator that removes water gravimetrically that may have condensed during transportation from the gas wells. Separator overhead is fed to one of eight compressor engines from a common suction header. The compressors discharge gas to a common discharge header that feeds to scrubbers. Scrubbers separate and collect liquids that may have formed during compression. The compressed gas is then fed to two dehydration units operating in parallel. Tri-ethylene glycol is circulated counter-currently and absorbs water. Rich glycol is circulated to a reboiler, where moisture is driven to the atmosphere by heating the glycol. Dry gas exits the contactors and is directed to one of two sales lines, where it is metered and exits the facility. The current gas processing capacity of the facility is 70 MMscfd.

I.B. Source Emission Points

Table 1 - Emission Units
Samson Resources South Ignacio Central Delivery Point

| Emission Unit Id. | Description | Control Equipment |
|--------------------------|---|--|
| E1 | 1680 hp, Waukesha 7044 GSI Rich Burn Compressor Engine, natural gas fired: Serial No. C-13225/1 Manufactured 5/2005 Installed 1/6/2006 | Non-Selective Catalyst |
| E2 | 1267 hp, Waukesha 7042 GL Lean Burn Compressor Engine, natural gas fired: Serial No. C-60768/1 Manufactured 11/1997 Installed 1/29/2007 | Oxidation Catalyst |
| E3 | Serial No. C-12097/2 Manufactured 2/2008 (NSPS JJJJ - engine) Installed 3/14/2008 | |
| E4 | 1336 hp, Waukesha 7042 GL Lean Burn Compressor Engine, natural gas fired: Serial No. C-10990/1 Manufactured March 2007 Installed May 7, 2007 | Oxidation Catalyst |
| E5 | 1400 hp, Waukesha 5794 LT Lean Burn Compressor Engine, natural gas fired: Serial No. C-15962/1 Manufactured 2/2006 Installed 8/24/2007 | Oxidation Catalyst |
| E6 | Serial No. C-16160/1 Manufactured 11/2005 Installed 4/8/2006 | |
| E7 | Serial No. C-15838/1 Manufactured 9/2005 Installed 3/29/2006 | |
| E8 | Serial No. C-15836/1 Manufactured 8/2005 Installed 4/5/2006 | |
| D1 | 30 MMscfd Dehydration Unit glycol regenerator & 1.25 MMBtu/hr natural gas-fired reboiler burner: Serial No. 101727 Installed 2003 | PESCO Control Unit: Condenser & Enclosed Flare Stack |
| D2 | 40 MMscfd Dehydration Unit Glycol Regenerator & 0.75 MMBtu/hr natural gas-fired reboiler burner: Serial No. Custom Installed 2/2009 | PESCO Control Unit: Condenser & Enclosed Flare Stack |

Table 2 - Insignificant Emission Units
Samson Resources South Ignacio Central Delivery Point

| Unit ID | Description |
|----------------|---|
| IEU1 | 16 - 500 gal. lubricating oil storage tanks (low vapor pressure) |
| IEU2 | 11 - 500 gal. used oil storage tanks (low vapor pressure) |
| IEU3 | 2 - 500 gal. ethylene glycol storage tanks (low vapor pressure) |
| IEU4 | 4 - 1000 gal. produced water storage tanks (low VOC content) |
| IEU5 | 1 - 400 bbl. slop tank (mostly water w/some lubricating oil - low vapor pressure) |
| IEU6 | 1 - 500 gal. methanol storage tank (low throughput) |
| IEU7 | 1 – 0.75 MMBtu/hr natural gas fired reboiler burner |
| IEU8 | 1 – 1.25 MMBtu/hr natural gas fired reboiler burner |
| IEU9 | 5 - 0.12 MMBtu/hr natural gas fired tank heaters |

II. Specific Requirements for Engines

Certain requirements in Section II of this permit (subsections of Sections II.D., II.E., II.F., II.G., II.H., and II.I.) have been created, at the permittee's request, specifically to recognize the catalysts for limiting the PTE of nitrogen oxides, carbon monoxide, and formaldehyde emissions.

[CAA 304(f)(4), 40 CFR 71.6(b) and 71.7(e)(1)(i)(A)(4)(i)]

II.A. 40 CFR Part 60 and 40 CFR Part 63 General Provisions

1. 40 CFR Part 60, Subpart A – Standards of Performance for New Stationary Sources, General Provisions: This facility is subject to the requirements of 40 CFR part 60, subpart A as outlined in Table 3 of 40 CFR 60, subpart JJJJ. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60.
[40 CFR 60.4246]
2. 40 CFR Part 63, Subpart A – National Emission Standards for Hazardous Air Pollutants for Source Categories, General Provisions: This facility is not subject to any of the requirements of 40 CFR part 63, subpart A.
[40 CFR 63.6590(c)]

II.B. 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines [40 CFR 63.6580-63.6675]

1. This facility is subject to the requirements of 40 CFR part 63, subpart ZZZZ. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 63, subpart ZZZZ.
2. The permittee must meet the requirements of 40 CFR part 63, subpart ZZZZ by meeting the requirements of 40 CFR part 60, subpart JJJJ, for spark ignition engines. No further requirements apply to engine unit E3 under 40 CFR part 63.
[40 CFR 63.6590(c)]

II.C. 40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230 – 60.4248]

1. This facility is subject to the requirements of 40 CFR part 60, subpart JJJJ. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR part 60, subpart JJJJ.
2. 40 CFR part 60, subpart JJJJ applies to the following engine:

E3: 1267 hp Waukesha, natural gas-fired, lean-burn engine;
Reconstructed post-June 12, 2006; Manufactured February 2008.

[40 CFR 60.4230(a)(5)]

3. The permittee shall demonstrate compliance with 40 CFR 60, subpart JJJJ according to one of the following methods:

(a) Certified Engine:

- (i) Operate an engine certified according to procedures specified in 40 CFR 60, subpart JJJJ for the same model year; and
- (ii) Demonstrate compliance according to one of the methods specified in §60.4231(a); or

(b) Non-Certified Engine:

- (i) Operate a non-certified engine and demonstrate compliance with the emission standards specified in the emissions table in Section II.D. of this permit and according to the testing requirements specified in §60.4244, as applicable; and
- (ii) Keep a maintenance plan and records of conducted maintenance and, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
- (iii) Conduct an initial performance test and subsequent performance testing according to 40 CFR 60.4244, every 8,760 hours of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.

[Explanatory Note: The performance testing requirements, as required for in 40 CFR 60, subpart JJJJ, can be found in the Appendix to this permit, Section VI.]

[40 CFR 60.4243]

4. Requirements pursuant to 40 CFR 60, subpart JJJJ are taken from the Federal Register as published on January 18, 2008 (73 FR 3568).

II.D. Emission Limits

1. Emissions from engine units E1, E2, E3, E4, E5, E6, E7, and E8 shall not exceed the following limits:

| Unit | Source of Emission Limit | CO | | NO _x | | VOC | |
|------|---|---------|--------|-----------------|--------|---------|--------|
| | | g/hp-hr | lbs/hr | g/hp-hr | lbs/hr | g/hp-hr | lbs/hr |
| E1 | Part 71 Permit/Consent Agreement | 3.5 | 12.9 | 2.5 | 9.2 | - | - |
| E2 | Part 71 Permit/Applicant Requested | 1.0 | 2.79 | - | - | - | - |
| E3 | Part 71 Permit/Applicant Requested | 1.0 | 2.79 | - | - | - | - |
| | NSPS JJJJ–Manuf. on or after 1/1/08 | 4.0* | - | 2.0* | - | 1.0* | - |
| | NSPS JJJJ – Manuf. on or after 7/1/10 [40 CFR 60.4233(f)(4) and (e)] | 2.0* | - | 1.0* | - | 0.7* | - |
| E4 | Part 71 Permit/Applicant Requested | 1.0 | 2.94 | - | - | - | - |
| E5 | Part 71 Permit/Applicant Requested | 1.0 | 3.08 | - | - | - | - |
| E6 | Part 71 Permit/Applicant Requested | 1.0 | 3.08 | - | - | - | - |
| E7 | Part 71 Permit/Applicant Requested | 1.0 | 3.08 | - | - | - | - |
| E8 | Part 71 Permit/Applicant Requested | 1.0 | 3.08 | - | - | - | - |

* Emission limit is for non-certified engines.

2. Facility-wide formaldehyde (CH_2O) emissions shall not exceed 9.5 tons during any consecutive 12 months. Compliance with the annual limits shall be determined on a rolling 12-month total.

II.E. Work Practice and Operational Requirements

1. Unit E1, a Waukesha 7044 GSI reciprocating natural gas compressor engine with 1,680 brake horsepower (bhp) shall be equipped with a Johnson Matthey non-selective catalytic reduction unit for the control of NO_x , CO, and CH_2O .
2. Units E2 and E3, which are Waukesha 7042 GL lean burn reciprocating natural gas compressor engines each rated at 1,267 brake horsepower (bhp), shall each be equipped with an oxidation catalyst for the control of CO and CH_2O .
3. Unit E4, a Waukesha 7042 GL lean burn reciprocating natural gas compressor engine with 1,336 bhp shall be equipped with an oxidation catalyst for the control of CO and CH_2O .
4. Units E5, E6, E7, and E8, which are Waukesha L5794LT reciprocating natural gas compressor engines each rated at 1,400 bhp, shall each be equipped with an oxidation catalyst for the control of CO and CH_2O .
5. The permittee shall follow, for each engine and any respective non-selective catalyst and oxidation catalyst, the manufacturer's recommended maintenance schedule and procedures to ensure optimum performance of each engine and catalyst.
6. The permittee shall install temperature sensing devices before the catalyst for each engine in order to continuously monitor the inlet temperature of the catalyst for each engine. Each temperature-sensing device shall be accurate to within plus or minus 3 °F.
7. The engine exhaust temperature for unit E1 at the inlet to the non-selective catalyst, shall be maintained at all times the engine operates at no less than 750 °F and no more than 1,250 °F. The engine exhaust temperature for units E2, E3, E4, E5, E6, E7, and E8 at the inlet to each oxidation catalyst, shall be maintained at all times the engine operates at no less than 500 °F and no more than 1,250 °F.
8. If the catalyst inlet temperature on an engine deviates from the acceptable range listed for each engine in Section II.E.7 above, then the following actions shall be taken:
 - (a) Immediately upon determining a deviation of the catalyst inlet temperature, corrective action shall be taken on that engine to assess performance problems and/or tuning issues and the catalyst shall be inspected for possible damage and problems affecting catalyst effectiveness (including, but not limited to, plugging, fouling, destruction, or poisoning of the catalyst).
 - (b) If the problem can be corrected by following the engine and/or the catalyst manufacturer's recommended procedures, then the permittee shall correct the problem within 24 hours of inspecting the engine and catalyst.

- (c) If the problem can not be corrected using the manufacturer's recommended procedures, then the affected engine shall cease operating immediately and shall not be returned to routine service until the catalyst inlet temperature is measured and found to be within the acceptable temperature range for that engine. The permittee shall also notify EPA in writing of the problem within 15 working days of observing the problem and include in the notification the cause of the problem and a corrective action plan that outlines the steps and timeframe for bringing the inlet temperature range into compliance. (The corrective action may include removal and cleaning of the catalyst according to the manufacturer's methods or replacement of the catalyst.)
9. The permittee shall install gauges before and after the catalyst for each engine in order to monitor pressure drop across the catalyst. The pressure sensing devices shall be accurate to within plus or minus five-tenths (0.5) inches of water.
10. The pressure drop across the catalyst for units E3, E4, E5, and E6 shall not change by more than 2 inches of water at maximum operating rate (90% to 110% of engine capacity at site elevation) from the baseline pressure drop across the catalyst measured during the latest performance test as required by Section II.F.6(d).
11. A pressure drop which exceeds the pressure drop range for an engine or replacement engine as indicated above shall be considered indicative of catalyst fouling or break through and the catalyst shall be inspected and cleaned or replaced, if necessary.
12. The permittee's completion of any or all of the actions prescribed by Sections II.E.8(a) through (c) and II.E.11 of this permit shall not constitute, nor qualify as, an exemption from any CO, NO_x, or CH₂O emission limits in this permit.
13. All emission units at the South Ignacio Central Delivery Point shall be fired only with natural gas. The natural gas shall be pipeline-quality in all respects except that CO₂ concentrations in the gas shall not be required to be within pipeline-quality.

[Explanatory Note: The purpose of permit Section 13, above, is to ensure that there are no contaminants in the fuel that might foul the catalyst. In general, pipeline-quality natural gas is (1) within $\pm 5\%$ of the heating value of pure methane, or 1,010 Btu/per cubic foot under standard atmospheric conditions, and (2) free of water and toxic or corrosive contaminants. However, CO₂ is not a potential foulant of the catalyst and has therefore been excluded from the requirement.]

II.F. Testing Requirements [40 CFR 71.6(a)(3)(i)(A) through (C)]

1. Performance Tests:
- (a) Reference method performance tests shall be conducted for all replacement engines to measure CH₂O emissions from the replacement engines to demonstrate compliance with the facility-wide CH₂O emission limit in Section II.D. The performance test for CH₂O shall be conducted within 90 calendar days of startup of a replacement engine.

[Explanatory Note: An initial reference method performance test was conducted for units E2, E3, E6, E7, and E8 for measuring CH₂O emissions from the engines to demonstrate compliance with the facility-wide CH₂O emission cap in Section II.D. when the emission limits were originally permitted on 11/30/2005. The initial performance test for CH₂O was conducted within 60 calendar days of 11/30/2005]

- (b) Reference method performance tests shall be conducted for replacement engines for unit E1 to measure NO_x and CO emissions to demonstrate compliance with the emission limits in Section II.D. The performance tests for NO_x and CO shall be conducted within 90 calendar days of startup of a replacement engine.
- (c) Reference Method performance tests shall be conducted, according to 40 CFR 60.4244, upon startup and for all new and replaced engines subject to NSPS JJJJ that are non-certified to measure NO_x, CO, and VOC emissions to demonstrate compliance with the emission limits in Section II.D. In addition, the permittee must conduct subsequent performance tests on non-certified engines every 8,760 hours of operation or 3 years, which ever comes first.

[40 CFR 60.4243(b)(2)(ii)]

- 2. Upon change out of the catalyst for any engine, a performance test shall be conducted for measuring NO_x (E1 only) and CO and CH₂O emissions to demonstrate continued compliance with the emission limits in Section II.D. and to re-establish temperature and pressure baselines. The performance test shall be conducted within 90 calendar days of the catalyst change out.
- 3. The performance tests for NO_x and CO shall be conducted in accordance with the test methods specified in 40 CFR part 60, Appendix A. EPA Reference Method 7E or ASTM D-6438-03 shall be used to measure NO_x emissions. EPA Reference Method 10 shall be used to measure CO emissions.
- 4. The performance test for measuring CH₂O emissions shall be conducted in accordance with EPA Reference Method 320 or 323 of 40 CFR part 63, Appendix A or Method CARB 430.
- 5. The performance test for measuring VOC emissions shall be conducted in accordance with EPA Reference Method 25A and 18 of 40 CFR part 63, Appendix A.

[40 CFR 4244, Table 2]

- 6. All tests for NO_x, CO, VOC, and CH₂O emissions must meet the following requirements:
 - (a) All tests shall be performed at a maximum operating rate (90% to 110% of engine design capacity);
 - (b) Each source test shall consist of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits (lbs/hr and g/hp-hr);

- (c) During each test run, data shall be collected on all parameters necessary to document how NO_x, CO, VOC, and CH₂O emissions were measured or calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.);
- (d) During each test run, the pressure drop across each oxidation catalyst and the inlet temperature to the oxidation catalyst for each engine shall be measured. The baseline pressure drop shall be the arithmetic average of all valid test runs; and
- (e) The source testing plans for NO_x, CO, and CH₂O emissions approved by EPA on May 19, 2004 and June 3, 2004 shall be followed. The source testing plans for VOC emissions pursuant to 40 CFR 60.4244 shall be followed. The source testing plan shall include and addresses the following elements:
 - (i) Purpose of the test;
 - (ii) Engines and catalysts to be tested;
 - (iii) Expected engine operating rate(s) during test;
 - (iv) Schedule/dates for test;
 - (v) Sampling and analysis procedures (sampling locations, test methods, laboratory identification);
 - (vi) Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and
 - (vii) Data processing and reporting (description of data handling and quality control procedures, report content).

II.G. Monitoring Requirements [40 CFR 71.6(a)(3)(i)(A) through (C)]

1. The permittee shall measure NO_x (E1 only) and CO emissions from all engines at least quarterly to demonstrate compliance with the emission limits in Section II.D, above. To meet this requirement, the permittee shall measure NO_x (E1 only) and CO emissions from each engine using a portable analyzer and the monitoring protocol approved by EPA on June 3, 2004. If the monitoring results for two (2) consecutive quarters are less than eighty percent (80%) of both the NO_x and CO emission limits in Section II.D., then the required monitoring frequency shall change from quarterly to semi-annual. If monitoring results for any one engine ever exceed more than 80% of either the NO_x (E1 only) or CO emission limits, then the required monitoring frequency shall revert back to quarterly for that engine only. Semi-annual monitoring may be resumed after two (2) consecutive quarters of monitoring results that demonstrate less than 80% of the NO_x (E1 only) and CO emission limits.
2. The permittee shall measure CH₂O emissions from all engines at least quarterly to demonstrate compliance with the facility-wide CH₂O emission limit in Section II.D, above. To meet this requirement, the permittee shall measure CH₂O emissions from each engine and replacement engine using the performance test methods and requirements listed in Section II.F, above and the test plan approved by EPA on June 3, 2004.

For each engine, if the monitoring results for two (2) consecutive quarters show that the CH₂O emission reduction meets or exceeds 60%, then the required monitoring frequency shall change from quarterly to semi-annually. If monitoring results ever show that the CH₂O emission

reduction is less than 60%, then the required monitoring frequency shall revert back to quarterly. Semi-annual monitoring may be resumed after two (2) consecutive quarters of monitoring results that demonstrate CH₂O emission reductions meet or exceed 60%.

3. Measurements of the engine exhaust temperature at the inlet to each catalyst shall be taken at least daily.
4. Measurements of the pressure drop across each catalyst shall be taken at least weekly.

II.H. Recordkeeping Requirements [40 CFR 71.6(a)(3)(ii), 40 CFR 60.4245]

1. Facility-wide emissions of CH₂O shall be calculated at the end of each calendar month from the results of the most recent performance test required in Section II.G.2 for units E1, E2, E3, E4, E5, E6, E7, and E8. The monthly emissions shall include CH₂O emissions from all other units, including insignificant emitting units, listed in Tables 1 and 2 of this permit. These emissions shall be recorded.
2. The permittee shall, at the end of each month, add the CH₂O emissions for that month to the calculated emissions for the preceding 11 months and record a new 12-month total. CH₂O emissions from all controlled, uncontrolled, and insignificant emitting units (Tables 1 and 2 of this permit) shall be included in the calculation.
3. The facility-wide emissions of CH₂O shall be calculated as follows:
 - (a) For the eight engines (E1, E2, E3, E4, E5, E6, E7, and E8), emissions for the month shall be calculated by multiplying the most recent CH₂O test result for that engine, in pounds per hour, by the number of operating hours for that engine for that month. If data on operating hours are not available for that unit for that month, full-time operation of the unit for that month shall be assumed.
 - (b) For the remaining emitting units at the facility, except insignificant emitting units, emissions for the month for each unit shall be calculated by multiplying the CH₂O emission factor for that unit, in pounds per hour by the number of operating hours for that unit for that month. If data on operating hours are not available for that unit for that month, full-time operation of the unit shall be assumed.
 - (c) Emissions for insignificant emission units for each month shall be recorded as one-twelfth of the annual emission amount listed for IEUs on the most recent Form PTE of the part 71 documents submitted to EPA, unless the IEUs have changed, in which case the permittee shall provide the basis for the new IEU emission calculations with the next required report.
4. The permittee shall comply with the following recordkeeping requirements:
 - (a) Records shall be kept of all temperature measurements required by Section II.G.3 of this permit, as well as a description of any corrective actions taken pursuant to Section II.E.9 of this permit.

- (b) Records shall be kept of vendor specifications to demonstrate that the accuracy of the temperature-sensing thermocouples at each catalyst is at least as accurate as that specified in Section II.E.6 of this permit.
 - (c) Records shall be kept of all pressure drop measurements required by Sections II.G.4 and II.E.9 of this permit, as well as a description of any corrective actions taken pursuant to Section II.E.11 of this permit.
 - (d) Records shall be kept that are sufficient to demonstrate, pursuant to Section II.E.13 of this permit, that the fuel for the engines is pipeline-quality natural gas in all respects, with the exception of CO₂ concentration in the natural gas.
5. The permittee shall keep records of all required testing (Section II.F.) and monitoring (Section II.G) in this permit. The records shall include the following:
- (a) The date, place, and time of sampling or measurements;
 - (b) The date(s) analyses were performed;
 - (c) The company or entity that performed the analyses;
 - (d) The analytical techniques or methods used;
 - (e) The results of such analyses or measurements; and
 - (f) The operating conditions as existing at the time of sampling or measurement.
6. The permittee must keep records of the following for engine E3:
- (a) All notifications submitted to comply with this subpart and all documentation supporting any notification;
 - (b) Maintenance conducted on the engine;
 - (c) If E3 is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048; and
 - (d) If E3 engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[40 CFR 60.4245(a)]

II.I. Notifications and Reporting Requirements

[40 CFR 71.6(a)(3)(iii), 40 CFR 60.4245 & 60.19]

- 1. The permittee shall submit to EPA a written report of the results of any performance tests and temperature and pressure drop measurements required in Section II.F. of this permit. This report shall be submitted within 90 calendar days of the date of testing completion.

2. The permittee shall submit to EPA, as part of the semi-annual monitoring reports required in Section IV of this permit, a report of any instances where:
 - (a) The temperature at the inlet to the catalyst is outside the limits established in Section II.E.8, and a description of any corrective actions taken;
 - (b) The pressure drop across the catalyst is outside the limits established in Section II.E.11., and a description of any corrective actions taken;
 - (c) An exceedance of the NO_x or CO emission limits in Section II.D.1 has occurred, and a description of any corrective actions taken; or
 - (d) An exceedance of the facility-wide CH₂O emission limit in Section II.D.2 has occurred, and a description of any corrective actions taken.
3. If no such instances of deviations, outlined in Section II.I.2(a) through (d) above, have been detected, then the permittee shall submit to EPA, as part of the semi-annual monitoring reports required in Section IV of this permit a statement that says so.
4. The permittee must, for engines that have not been certified by an engine manufacturer to meet the emission standards in §60.4231(c), submit an initial notification as required in §60.7(a)(1). The notification must include the following information:
 - (a) Name and address of the owner or operator;
 - (b) The address of the affected source;
 - (c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (d) Emission control equipment; and
 - (e) Fuel used.

[40 CFR 60.4245(c)]
5. The permittee must submit a copy of each performance test as required by §60.4244 and Section II.F.1 within 60 days after the test has been completed.

[40 CFR 60.4245(d)]

III. Specific Requirements for Glycol Dehydrators

Certain requirements in Section III of this permit have been created, at the permittee's request, to limit the PTE of benzene from the glycol dehydrators (D1 and D2) and facility-wide hazardous air pollutants; specifically, Sections III.A, III.B, III.C, III.D, III.E.

[CAA 304(f)(4), 40 CFR 71.6(b) and 71.7(e)(1)(i)(A)(4)(i)]

III.A. Emission Limits

1. Benzene emissions from each of the glycol dehydration units, D1 and D2, shall be limited to 0.9 tons during any consecutive 12 months. Compliance with the annual limits shall be determined on a rolling 12-month total.
2. Facility-wide HAP emissions shall not exceed 23 tons during any consecutive 12 months. Compliance with the annual limits shall be determined on a rolling 12-month total.

III.B. Work Practice and Operational Requirements

1. The permittee shall install and operate a PESCO Control Unit capable of reducing uncontrolled benzene emissions from both dehydrators (D1 and D2) by no less than 98%, and:
 - (a) Emissions from the both dehydration unit process vents (D1 and D2) shall be routed to the enclosed flare;
 - (b) A flame must be present on the enclosed flare at all times during which either one or both of the dehydration units (D1 and/or D2) are operating. The dehydration units (D1 and D2) shall not be operated if a flame is not present in the enclosed flare;
 - (c) The permittee shall utilize the emergency shutdown (ESD) valve for safety considerations only; and
 - (d) The permittee shall minimize visible emissions from the enclosed flare stack.
2. The permittee shall follow, for each dehydration unit and the PESCO Control Unit, the manufacturer's recommended maintenance schedule and procedures to ensure optimum performance.

III.C. Monitoring Requirements [40 CFR 71.6(a)(3)(i)(A) through (C)]

1. The permittee shall perform monthly testing of the inlet wet gas stream to the dehydrators (extended wet gas analysis). The analysis shall include the inlet gas temperature and pressure at which the sample was taken.
2. The permittee shall determine the monthly benzene and total HAP emissions from each dehydrator using GRI GlyCalc Version 4.0. The input parameter to the model shall include:

- (a) The current months inlet wet gas analysis;
- (b) The temperature and pressure of the gas provided in the inlet wet gas analysis;
- (c) The enclosed flare control efficiency; and
- (d) The maximum gas throughput and glycol pump recirculation rate for each dehydrator as follows:

| Dehydration Unit ID | Maximum Gas Throughput | Maximum Glycol Pump Recirculation Rate |
|----------------------------|-------------------------------|---|
| D1 | 30 MMscfd | 15 gallons per minute |
| D2 | 40 MMscfd | 17 gallons per minute |

- 3. Benzene emissions from each dehydrator shall be recorded at the end of each month. The permittee shall, at the end of each month, add the benzene emissions for that month to the calculated emissions for the preceding eleven months and record a new twelve-month total.
- 4. Facility-wide HAP emissions shall be determined as follows:
 - (a) HAP emissions from each dehydrator and all other units operating at the facility, including insignificant units, listed in Tables 1 and 2 of this permit, shall be recorded at the end of each month;
 - (i) HAP emissions from the dehydrators shall be determined using the GRI GlyCalc model required in Section III.C.2;
 - (ii) HAP emissions from the engines shall be determined using the methods outlined in Section II.H of this permit;
 - (iii) Emissions for insignificant emission units for each month shall be recorded as one-twelfth of the annual emission amount listed for IEUs on the most recent Form PTE of the part 71 documents submitted to EPA, unless the IEUs have changed, in which case the permittee shall provide the basis for the new IEU emission calculations with the next required report.
 - (b) The permittee shall sum the HAP emissions from each dehydrator, and all other units operating at the facility, including insignificant units, listed in Tables 1 and 2 of this permit each month;
 - (c) The permittee shall, at the end of each month, add the HAP emissions for that month to the calculated HAP emissions for the preceding eleven months and record a new twelve month total.

III.D. Recordkeeping Requirements [40 CFR 71.6(a)(3)(ii) and 40 CFR 63.774(d)(1)]

1. The permittee shall comply with the following recordkeeping requirements:
 - (a) Records shall be kept of the dehydrator and control equipment specifications;
 - (b) Records shall be kept of the equipment manufacturer's recommended maintenance schedule and procedures;
 - (c) Records shall be kept of the monthly GRI GlyCalc modeling analysis; and
 - (d) Records shall be kept of the rolling 12 month emission totals for benzene emissions from the dehydrator and the facility-wide HAP emissions.
2. The permittee shall keep records of all required gas analysis testing. The records shall include the following:
 - (a) The date, place, and time of sampling or measurements;
 - (b) The date(s) analyses were performed;
 - (c) The company or entity that performed the analyses;
 - (d) The analytical techniques or methods used;
 - (e) The results of such analyses or measurements; and
 - (f) The operating conditions as existing at the time of sampling or measurement (gas flow rate, gas temperature, and gas pressure).
3. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. These records shall be made available upon request by EPA. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

III.E. Reporting Requirements [40 CFR 71.6(a)(3)(iii)]

The permittee shall submit to EPA, as part of the semi-annual monitoring reports required in Section IV.B.1. of this permit, where an excursion of the benzene emission limit or facility-wide HAP emission limit has occurred, as well as a description of any corrective actions taken. If no such instances have been detected, then a statement shall be provided to say so.

IV. Facility-Wide Requirements

Conditions in this section of the permit apply to all emissions units located at the facility, including any units not specifically listed in Table 1 and Table 2 of Section I.B.

[40 CFR 71.6(a)(1)]

IV.A. General Recordkeeping Requirements [40 CFR 71.6(a)(3)(ii)]

The permittee shall comply with the following generally applicable recordkeeping requirements:

1. If the permittee determines that his or her stationary source that emits (or has the potential to emit, without federally recognized controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR part 63, the permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the permittee believes the source is unaffected (e.g., because the source is an area source).

[40 CFR 63.10(b)(3)]
2. Records shall be kept, as required by the Off Permit Changes condition of this permit which are made in accordance with the approved Alternative Operating Scenario condition of this permit.

IV.B. General Reporting Requirements

1. The permittee shall submit to EPA reports of any monitoring and recordkeeping required under this permit semi-annually by April 1st and October 1st of each year. The report due on April 1st shall cover the prior six-month period from July 1st through December 31st. The report due on October 1st shall cover the prior six-month period from January 1st through June 30th. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Section V.E. of this permit.
2. The permittee shall promptly report to the EPA Regional Office deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations and any corrective actions or preventive measures taken. “Prompt” is defined as follows:
 - (a) Any definition of “prompt” or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit;
 - (b) Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence;

- (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continues for more than two hours in excess of permit requirements, the report must be made within 48 hours; and
- (iii) For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report.

3. If any of the conditions in IV.B.2(b)(i) or (ii), are met, the source must notify EPA by telephone (1-800-227-8917) or facsimile (303-312-6064) based on the timetables listed above.

[Notification by telephone or fax must specify that this notification is a deviation report for a part 71 permit]. A written notice, certified consistent with Section V.E. of this permit must be submitted within 10 working days of the occurrence. All deviations reported under this Section must also be identified in the 6-month report required under permit Section IV.B.1.

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a form "PDR" for prompt deviation reporting. The form may be found on EPA website at: <http://www.epa.gov/air/oagps/permits/p71forms.html>]

4. "Deviation" means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with §71.6(a)(3)(i) and (a)(3)(ii). For a situation lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

- (a) A situation where emissions exceed an emission limitation or standard;
- (b) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
- (c) A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or
- (d) A situation in which an exceedance or an excursion, as defined in 40 CFR part 64 occurs.

IV.C. Permit Shield [40 CFR 71.6(f)(3)]

Nothing in this permit shall alter or affect the following:

- 1. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
- 2. The ability of the EPA to obtain information under section 114 of the CAA; or
- 3. The provisions of section 303 of the CAA (emergency orders), including the authority of the Administrator under that section.

IV.D. Alternative Operating Scenarios [40 CFR 71.6(a)(9) and 40 CFR 71.6(a)(3)(ii)]

Engine Replacement/Overhaul

1. Replacement of an existing permitted compressor engine with an engine of the same make, model, horsepower rating, and configured to operate in the same manner as the engine being replaced, and which satisfies all of the provisions for Off Permit Changes in this permit, including the provisions specific to engine replacement, shall be considered an allowed alternative operating scenario under this permit.
2. Any emission limits, requirements, control technologies, testing, or provisions that apply to engines that are replaced under this Alternative Operating Scenarios section shall also apply to the replacement engines, including initial performance testing requirements.
3. A replacement engine for unit E3 shall be considered a new unit and thus subject to the performance tests required by Section II.F, and all other conditions applicable to unit E3 in this permit.
4. Replacement of a permitted compressor engine with an engine subject to 40 CFR part 60, subpart JJJJ is not allowed under this alternative operating scenario.
5. Replacement of a permitted compressor engine with an engine subject to 40 CFR part 63, subpart ZZZZ is not allowed under this alternative operating scenario.

[Explanatory note: This section was included to allow for Off Permit replacement of engines that may have existing federally enforceable limits created in this permit. Replacement engines which trigger new applicable requirements (i.e., NSPS, NESHAP, etc.) must be processed through a minor permit modification. (See Section V.I. of this permit).]

V. Part 71 Administrative Requirements

V.A. Annual Fee Payment [40 CFR 71.6(a)(7) and 40 CFR 71.9]

1. The permittee shall pay an annual permit fee in accordance with the procedures outlined below.

[40 CFR 71.9(a)]

2. The permittee shall pay the annual permit fee each year no later than April 1st. The fee shall cover the previous calendar year.

[40 CFR 71.9(h)]

3. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency.

[40 CFR 71.9(k)(1)]

4. The permittee shall send fee payment and a completed fee filing form to:

For regular U.S. Postal Service mail

U.S. Environmental Protection Agency
FOIA and Miscellaneous Payments
Cincinnati Finance Center
P.O. Box 979078
St. Louis, MO 63197-9000

For non-U.S. Postal Service Express mail

(FedEx, Airborne, DHL, and UPS)

U.S. Bank
Government Lockbox 979078
U.S. EPA FOIA & Misc. Payments
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63101

[40 CFR 71.9(k)(2)]

5. The permittee shall send an updated fee calculation worksheet form and a photocopy of each fee payment check (or other confirmation of actual fee paid) submitted annually by the same deadline as required for fee payment to the address listed in Section V.E. of this permit.

[40 CFR 71.9(h)(1)]

[Explanatory note: The fee filing form “FF” and the fee calculation worksheet form “FEE” may be found on EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

6. Basis for calculating annual fee:

- (a) The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all “regulated pollutants (for fee calculation)” emitted from the source by the presumptive emissions fee (in dollars/ton) in effect at the time of calculation.

[40 CFR 71.9(c)(1)]

- (i) “Actual emissions” means the actual rate of emissions in tpy of any regulated pollutant (for fee calculation) emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions units actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.

[40 CFR 71.9(c)(6)]

- (ii) Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data.

[40 CFR 71.9(h)(3)]

- (iii) If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.

[40 CFR 71.9(e)(2)]

[Explanatory note: The presumptive fee amount is revised each calendar year to account for inflation, and it is available from EPA prior to the start of each calendar year.]

- (b) The permittee shall exclude the following emissions from the calculation of fees:

- (i) The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tpy;

[40 CFR 71.9(c)(5)(i)]

- (ii) Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and

[40 CFR 71.9(c)(5)(ii)]

- (iii) The quantity of actual emissions (for fee calculation) of insignificant activities [defined in §71.5(c)(11)(i)] or of insignificant emissions levels from emissions units identified in the permittee’s application pursuant to §71.5(c)(11)(ii).

[40 CFR 71.9(c)(5)(iii)]

- 7. Fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a responsible official.

[40 CFR 71.9(h)(2)]

[Explanatory note: The fee calculation worksheet form already incorporates a section to help you meet this responsibility.]

- 8. The permittee shall retain fee calculation worksheets and other emissions-related data used to determine fee payment for 5 years following submittal of fee payment. [Emission-related data include, for example, emissions-related forms provided by EPA and used by the permittee for fee calculation purposes, emissions-related spreadsheets, and emissions-related data, such as

records of emissions monitoring data and related support information required to be kept in accordance with §71.6(a)(3)(ii).]

[40 CFR 71.9(i)]

9. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with §71.9(l).

[40 CFR 71.9(l)]

10. When notified by EPA of underpayment of fees, the permittee shall remit full payment within 30 days of receipt of notification.

[40 CFR 71.9(j)(2)]

11. A permittee who thinks an EPA assessed fee is in error and who wishes to challenge such fee, shall provide a written explanation of the alleged error to EPA along with full payment of the EPA assessed fee.

[40 CFR 71.9(j)(3)]

V.B. Annual Emissions Inventory [40 CFR 71.9(h)(1)and (2)]

The permittee shall submit an annual emissions report of its actual emissions for both criteria pollutants and regulated HAPS for this facility for the preceding calendar year for fee assessment purposes. The annual emissions report shall be certified by a responsible official and shall be submitted each year to EPA by April 1st.

The annual emissions report shall be submitted to EPA at the address listed in Section V.E. of this permit.

[Explanatory note: An annual emissions report, required at the same time as the fee calculation worksheet by §71.9(h), has been incorporated into the fee calculation worksheet form as a convenience.]

V.C. Compliance Requirements

1. Compliance with the Permit

- (a) The permittee must comply with all conditions of this part 71 permit. Any permit noncompliance constitutes a violation of the CAA and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

[40 CFR 71.6(a)(6)(i)]

- (b) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[40 CFR 71.6(a)(6)(ii)]

- (c) For the purpose of submitting compliance certifications in accordance with Section V.C.2 of this permit, or establishing whether or not a person has violated or is in

violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the Act, 40 CFR 51.212, 52.12, 52.33, 60.11(g), and 61.12]

2. Compliance Schedule

- (a) For applicable requirements with which the source is in compliance, the source will continue to comply with such requirements.

[40 CFR 71.5(c)(8)(iii)(A)]

- (b) For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis.

[40 CFR 71.5(c)(8)(iii)(B)]

3. Compliance Certifications

The permittee shall submit to EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices annually each year no later than April 1st. The compliance certification shall cover the same 12-month period as the two consecutive semi-annual monitoring reports.

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a reporting form for annual compliance certifications. The form may be found on EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with §71.5(d). The certification shall include the following:

- (a) Identification of each permit term or condition that is the basis of the certification;
- (b) The identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the CAA, which prohibits knowingly making a false certification or omitting material information;
- (c) The status of compliance with each term and condition of the permit for the period covered by the certification based on the method or means designated in (ii) above; and
- (d) The certification shall identify each deviation and take it into account in the compliance certification;

- (i) Such other facts as the EPA may require to determine the compliance status of the source; and
- (ii) Whether compliance with each permit term was continuous or intermittent.

[40 CFR 71.6(c)(5)]

V.D. Duty to Provide and Supplement Information

[40 CFR 71.6(a)(6)(v), 71.5(a)(3), and 71.5(b)]

1. The permittee shall furnish to EPA, within a reasonable time, any information that EPA may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the EPA copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR part 2, subpart B.

[40 CFR 71.6(a)(6)(v) and 40 CFR 71.5(a)(3)]

2. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. In addition, a permittee shall provide additional information as necessary to address any requirements that become applicable after the date a complete application is filed, but prior to release of a draft permit.

[40 CFR 71.5(b)]

V.E. Submissions [40 CFR 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

1. Any document (application form, report, compliance certification, etc.) required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Explanatory note: EPA has developed a reporting form "CTAC" for certifying truth, accuracy and completeness of part 71 submissions. The form may be found on EPA website at:

<http://www.epa.gov/air/oaqps/permits/p71forms.html>]

2. Any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to:

Part 71 Permit Contact
Air Program, 8P-AR
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

V.F. Severability Clause [40 CFR 71.6(a)(5)]

The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

V.G. Permit Actions [40 CFR 71.6(a)(6)(iii)]

This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

V.H. Administrative Permit Amendments [40 CFR 71.7(d)]

The permittee may request the use of administrative permit amendment procedures for a permit revision that:

1. Corrects typographical errors;
2. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
3. Requires more frequent monitoring or reporting by the permittee;
4. Allows for a change in ownership or operational control of a source where the EPA determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the EPA;
5. Incorporates into the part 71 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of §§71.7 and 71.8 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in §71.6; or
6. Incorporates any other type of change which EPA has determined to be similar to those listed above in subparagraphs 1 through 5 above.

[Explanatory Note: If subparagraphs 1 through 5 above do not apply, please contact EPA for a determination of similarity prior to submitting your request for an administrative permit amendment under this provision.]

V.I. Minor Permit Modifications [40 CFR 71.7(e)(1)]

1. The permittee may request the use of minor permit modification procedures only for those modifications that:

- (a) Do not violate any applicable requirement;
- (b) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- (c) Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
- (d) Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - (i) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of title I; and
 - (ii) An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the CAA;
- (e) Are not modifications under any provision of title I of the CAA; and
- (f) Are not required to be processed as a significant modification.

[40 CFR 71.7(e)(1)(i)(A)]

2. Notwithstanding the list of changes ineligible for minor permit modification procedures in paragraph 1 above, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.

[40 CFR 71.7(e)(1)(i)(B)]

3. An application requesting the use of minor permit modification procedures shall meet the requirements of §71.5(c) and shall include the following:
 - (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - (b) The source's suggested draft permit;
 - (c) Certification by a responsible official, consistent with §71.5(d), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
 - (d) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(1)(ii)]

4. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(1)(v)]

5. The permit shield under §71.6(f) may not extend to minor permit modifications.

[40 CFR 71.7(e)(1)(vi)]

V.J. Group Processing of Minor Permit Modifications [40 CFR 71.7(e)(2)]

1. Group processing of modifications by EPA may be used only for those permit modifications:
 - (a) That meet the criteria for minor permit modification procedures under Section V.I.1. of this permit; and
 - (b) That collectively are below the threshold level of 10 percent of the emissions allowed by the permit for the emissions unit for which the change is requested, 20 percent of the applicable definition of major source in §71.2, or 5 tpy, whichever is least.

[40 CFR 71.7(e)(2)(i)]

2. An application requesting the use of group processing procedures shall be submitted to EPA, shall meet the requirements of §71.5(c), and shall include the following:
 - (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - (b) The source's suggested draft permit;
 - (c) Certification by a responsible official, consistent with §71.5(d), that the proposed modification meets the criteria for use of group processing procedures and a request that such procedures be used;
 - (d) A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under subparagraph (a)(ii) above; and
 - (e) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(2)(ii)]

3. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(2)(v)]

4. The permit shield under §71.6(f) may not extend to group processing of minor permit modifications.

[40 CFR 71.7(e)(2)(vi)]

V.K. Significant Permit Modifications [40 CFR 71.7(e)(3)]

1. The permittee must request the use of significant permit modification procedures for those modifications that:
 - (a) Do not qualify as minor permit modifications or as administrative amendments;
 - (b) Are significant changes in existing monitoring permit terms or conditions; or
 - (c) Are relaxations of reporting or recordkeeping permit terms or conditions.

[40 CFR 71.7(e)(3)(i)]

2. Nothing herein shall be construed to preclude the permittee from making changes consistent with part 71 that would render existing permit compliance terms and conditions irrelevant.

[40 CFR 71.7(e)(3)(i)]

3. Permittees must meet all requirements of part 71 for applications, public participation, and review by affected states and tribes for significant permit modifications. For the application to be determined complete, the permittee must supply all information that is required by §71.5(c) for permit issuance and renewal, but only that information that is related to the proposed change.

[40 CFR 71.7(e)(3)(ii), 71.8(d), and 71.5(a)(2)]

V.L. Reopening for Cause [40 CFR 71.7(f)]

1. The permit may be reopened and revised prior to expiration under any of the following circumstances:
 - (a) Additional applicable requirements under the Act become applicable to a major part 71 source with a remaining permit term of 3 or more years. Such a reopening shall be

completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to §71.7 (c)(3);

- (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;
- (c) EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- (d) EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

V.M. Property Rights [40 CFR 71.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

V.N. Inspection and Entry [40 CFR 71.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow EPA or an authorized representative to perform the following:

1. Enter upon the permittee's premises where a part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. As authorized by the CAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

V.O. Emergency Provisions [40 CFR 71.6(g)]

1. In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (a) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

- (b) The permitted facility was at the time being properly operated;
 - (c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
 - (d) The permittee submitted notice of the emergency to EPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements for prompt notification of deviations.
2. In any enforcement proceeding, the permittee attempting to establish the occurrence of an emergency has the burden of proof.
 3. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

V.P. Transfer of Ownership or Operation [40 CFR 71.7(d)(1)(iv)]

A change in ownership or operational control of this facility may be treated as an administrative permit amendment if the EPA determines no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to EPA.

V.Q. Off Permit Changes [40 CFR 71.6(a)(12) and 40 CFR 71.6(a)(3)(ii)]

The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met, and that all records required by this section are kept on site at the source for a period of five (5) years:

1. Each change is not addressed or prohibited by this permit;
2. Each change shall meet all applicable requirements and shall not violate any existing permit term or condition;
3. Changes under this provision may not include changes subject to any requirement of 40 CFR parts 72 through 78 or modifications under any provision of title I of the CAA;
4. The permittee must provide contemporaneous written notice to EPA of each change, except for changes that qualify as insignificant activities under §71.5(c)(11). The written notice must describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;

5. The permit shield does not apply to changes made under this provision;
6. The permittee must keep a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes; and
7. For replacement of a permitted engine with an engine of the same make, model, horsepower rating, and configured to operate in the same manner as the engine being replaced, in addition to satisfying all other provisions for off permit changes, the permittee satisfies the following provisions:
 - (a) The replacement engine employs air emissions control devices, monitoring, record keeping and reporting that are equivalent to those employed by the engine being replaced;
 - (b) The replacement of the existing engine does not constitute a major modification or major new source as defined in Federal PSD regulations (40 CFR 52.21);
 - (c) No new applicable requirements, as defined in 40 CFR 71.2, are triggered by the replacement; and
 - (d) The following information is provided in a written notice to EPA, prior to installation of the replacement engine, in addition to the standard information listed above for contemporaneous written notices for off permit changes:
 - (i) Make, model number, serial number, horsepower rating and configuration of the existing engine and the replacement engine;
 - (ii) Manufacture date, commence construction date (per the definitions in 40 CFR 60.4230(a) and 63.2), and installation date of the replacement engine at the facility;
 - (iii) If applicable, documentation of the cost to rebuild a replacement engine versus the cost to purchase a new engine in order to support claims that an engine is not “reconstructed”, as defined in 40 CFR 60.15 and 40 CFR 63.2;
 - (iv) 40 CFR part 60, subpart IIII (CI Engine NSPS) non-applicability documentation as appropriate;
 - (v) 40 CFR part 60, subpart JJJJ (SI Engine NSPS) non-applicability documentation as appropriate;
 - (vi) 40 CFR part 63, subpart ZZZZ (RICE MACT) non-applicability documentation for major sources, as appropriate;
 - (vii) 40 CFR part 63, subpart ZZZZ (RICE MACT) non-applicability documentation for area sources, as appropriate; and
 - (viii) Documentation to demonstrate that the replacement does not constitute a major new source or major modification, as defined in Federal PSD rules (40 CFR 52.21), as follows:

- (A) If the replacement will not constitute a “physical change or change in the method of operation” as described in §52.21(b)(2)(i), an explanation of how that conclusion was reached shall be provided.
- (B) If the replacement will constitute a “physical change or change in the method of operation” as described §52.21(b)(2)(i), the following information shall be provided:
 - (1) If the existing source is a “major stationary source” as defined in §52.21(b)(1): For each “regulated NSR pollutant” as defined in §52.21(b)(50), a demonstration (including all calculations) that the replacement will not be a “major modification” as defined in §52.21(b)(2). A modification is major only if it causes a “significant emissions increase” as defined in §52.21(b)(40), and also causes a “significant net emissions increase” as defined in §§52.21(b)(3) and (b)(23).

The procedures of §52.21(a)(2)(iv) shall be used to calculate whether or not there will be a significant emissions increase. If there will be a significant emissions increase, then calculations shall be provided to demonstrate there will not be a significant net emissions increase. These latter calculations shall include all source-wide contemporaneous and creditable emission increases and decreases, as defined in §52.21(b)(3), summed with the PTE of the replacement unit(s).

If netting is used to demonstrate that the replacement will not constitute a “major modification,” verification shall be provided that the replacement engine(s) or turbine(s) employ emission controls at least equivalent in control effectiveness to those employed by the engine(s) or turbine(s) being replaced.

PTE of replacement unit(s) shall be determined based on the definition of PTE in §52.21(b)(4). For each “regulated NSR pollutant” for which the PTE is not “significant,” calculations used to reach that conclusion shall be provided.

- (2) If the existing source is not a “major stationary source” as defined in §52.21(b)(1): For each “regulated NSR pollutant,” a demonstration (including all calculations) that the replacement engine(s) or turbine(s), by itself, will not constitute a “major stationary source” as defined in §52.21(b)(1)(i).

- 8. The notice shall be kept on site and made available to EPA on request, in accordance with the general recordkeeping provision of this permit.
- 9. Submittal of the written notice required above shall not constitute a waiver, exemption, or shield from applicability of any applicable standard or PSD permitting requirements under

40 CFR 52.21 that would be triggered by the replacement of any one engine, or by replacement of multiple engines.

V.R. Permit Expiration and Renewal [40 CFR 71.5(a)(1)(iii), 71.5(a)(2), 71.5(c)(5), 71.6(a)(11), 71.7(b), 71.7(c)(1), and 71.7(c)(3)]

1. This permit shall expire upon the earlier occurrence of the following events:
 - (a) Five (5) years elapse from the date of issuance; or
 - (b) The source is issued a part 70 or part 71 permit under an EPA approved or delegated permit program.

[40 CFR 71.6(a)(11)]
2. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted at least 6 months but not more than 18 months prior to the date of expiration of this permit.

[40 CFR 71.5(a)(1)(iii)]
3. If the permittee submits a timely and complete permit application for renewal, consistent with §71.5(a)(2), but EPA has failed to issue or deny the renewal permit, then all the terms and conditions of the permit, including any permit shield granted pursuant to §71.6(f) shall remain in effect until the renewal permit has been issued or denied.

[40 CFR 71.7(c)(3)]
4. The permittee's failure to have a part 71 permit is not a violation of this part until EPA takes final action on the permit renewal application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit any additional information identified as being needed to process the application by the deadline specified in writing by EPA.

[40 CFR 71.7(b)]
5. Renewal of this permit is subject to the same procedural requirements that apply to initial permit issuance, including those for public participation, affected State, and tribal review.

[40 CFR 71.7(c)(1)]
6. The application for renewal shall include the current permit number, description of permit revisions and off permit changes that occurred during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form.

[40 CFR 71.5(a)(2) and 71.5(c)(5)]

VI. Appendix

VI.A. Inspection Information

1. Directions to Facility:

From the intersection of U.S. Highway 550 and County Road 318 in La Plata County, Colorado, go east on County Road 318 to the tee in the road. Turn right at the tee and drive to between mile markers 5 and 6 to a guardrail. Turn at the next right and drive to the South Ignacio facility.

2. Latitude and Longitude coordinates:

Lat. 37° 3' 14.1" N Long. -107° 37' 30.8" W

3. Safety Considerations:

Persons entering the site are required to wear a hard hat, safety glasses, safety toe footwear, hearing protection, and fire retardant clothing.

VI.B. 40 CFR 60, Subpart JJJJ Performance Testing

Testing Requirements for Owners and Operators

Sec. 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in Sec. 60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in Sec. 60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in Sec. 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv). 1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, Appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (\text{Eq. 5})$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad (\text{Eq. 6})$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.